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DEVELOPING GENIAL.LY BASED SELF-ACCESS LANGUAGE LEARNING SUPPLEMENTARY MATERIALS TO FACILITATE STUDENTS' LEARNING AUTONOMY IN TERTIARY EDUCATION

by

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Abstract:

Building learning autonomy is a pivotal aspect in higher education. Students should be able to be more independent, rather than relying heavily on teacher-directed activities within the classroom. It is crucial to provide self-access materials that align with students' learning needs. This current research, therefore, aimed at developing interactive English supplementary materials using Genial.ly for promoting students' autonomous learning. Genial.ly has been proven to be a promising application; however, the use of Genial.ly to develop English for Specific Purposes (ESP) self-access learning materials for EFL Nursing students is still understudied. Following the research and development stages, which included planning, development, and evaluation, the findings showed that the average scores for language and media expert validation were 4.8 and 4.7, respectively. Following this, the researcher conducted the first revision and a small-scale trial, yielding an average score of 4.1. Based on the results, it can be concluded that the learning product meets the standard and is feasible to be implemented as supplementary materials to help both teachers and students within the English teaching and learning process. Further classroom action research (CAR) or experimental design is highly recommended to investigate the effectiveness of the Genial. Ly-based learning product. The implementation of Genial. Ly-based interactive English supplementary materials also required further and larger feedback from the broader user base to inform future product development that meets the students' needs.

***Keywords**: genial.ly, self-access language learning, supplementary materials*

Abstrak:

Membangun otonomi belajar merupakan hal penting dalam jenjang pendidikan tinggi. Siswa harus dapat lebih mandiri daripada sangat bergantung pada kegiatan yang diarahkan oleh guru di dalam kelas. Sangat penting untuk menyediakan materi akses mandiri yang selaras dengan kebutuhan belajar siswa. Oleh karena itu, penelitian saat ini bertujuan untuk mengembangkan materi tambahan bahasa Inggris interaktif menggunakan Genial.ly untuk mempromosikan pembelajaran otonom siswa. Genial.ly terbukti menjadi aplikasi yang menjanjikan, namun penggunaan Genial.ly untuk mengembangkan materi pembelajaran akses mandiri Bahasa Inggris untuk Tujuan Khusus (ESP) untuk mahasiswa Keperawatan EFL masih kurang dipelajari. Setelah tahap penelitian dan pengembangan yang terdiri dari perencanaan, pengembangan, dan evaluasi, temuan menunjukkan bahwa skor rata-rata validasi ahli bahasa dan media masing-masing adalah 4,8 dan 4,7. Setelah itu, peneliti melakukan revisi pertama dan uji coba skala kecil dengan skor rata-rata yang diperoleh adalah 4,1. Berdasarkan hasilnya, dapat disimpulkan bahwa produk pembelajaran tersebut memenuhi standar dan layak untuk diimplementasikan untuk membantu baik guru maupun siswa sebagai bahan tambahan dalam proses belajar bahasa Inggris. Penelitian tindakan kelas lebih lanjut (CAR) atau desain eksperimental sangat disarankan untuk dilakukan untuk menggali efektivitas produk pembelajaran berbasis Genial.ly. Penerapan materi tambahan bahasa Inggris interaktif berbasis Genial.ly juga membutuhkan umpan balik lebih lanjut dan lebih besar dari pengguna yang lebih luas untuk memberikan informasi

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pengembangan produk di masa depan yang memenuhi kebutuhan siswa.
***Kata kunci**: genial.ly, pembelajaran bahasa akses mandiri, materi tambahan*

INTRODUCTION

Information technology is a vital investment worldwide, as it enhances the efficiency and effectiveness of educational activities (Malika et al., 2022). It is not only the backbone of a society, but also crucial for educational changes to educate learners as individuals who can create, access, and filter information better (Kalinina et al., 2020). The advancement of educational technology, then, also provides excellent opportunities for teachers to optimize instructional media and materials in support of the teaching and learning process. Several studies have demonstrated that the integration of technology is effective in presenting creative learning experiences, creating more interesting and engaging atmospheres, and promoting students' digital literacies, as well as enhancing autonomy, by making it easier to access supportive learning resources. The findings of several previous studies also indicate that the implementation of technology-based media improves motivation in learning (Freddy & Olifia, 2019; Cabrera-Solano, 2022; Castillo-Cuesta, 2022).

Due to the educational technology's potential, research trends on it continue to increase worldwide. Particularly during the global COVID-19 pandemic of 2020-2022, the educational field relies mainly on the use of technology to conduct the process of teaching and learning. The face-to-face classroom had to be converted into an online meeting by employing a variety of educational technologies through online meeting platforms, educational applications, websites, and other tools. The classroom, which usually relies on teachers' explanations, should be shifted to a more student-centered learning approach that enables more students to become independent learners. In other words, students can study independently with the limited support of teachers' companions, aided by diverse technology provisions. This transformation, viewed from a positive perspective, shapes a new learning culture of autonomy, decreases the role of the teacher in the teaching and learning process, and so forth. Moreover, supportive technology in the form of teaching and learning applications continues to develop as an alternative learning medium (Puspitarini & Hanif, 2019). The abundance of new technology-based resources, however, does not mean omitting the role of teachers throughout the learning process. Hence, teachers, as learning facilitators, need to be creative, innovative, selective, and adaptive in integrating educational technology

inventions to help students in learning settings.

Genially, then, is one of the technologically based educational resources that teachers can employ to assist the process of teaching and learning. It is a digital platform that provides a variety of interactive multimedia facilities, allowing users to easily create attractive presentations, infographics, games, interactive images, and many other engaging features. It can be categorized as user-friendly, as users from a wide range of ages can operate the media easily. Additionally, users can contribute movies, photographs, hyperlinks, and multimedia items that may be impressive (Palioura & Dimoulas, 2022). It is also among the top 100 in the learning media application.

Previous studies on the development of Genial.ly for Indonesian subjects have claimed that the product is suitable for use as a learning medium for primary-level students (Aryani et al., 2022). Additionally, it has also been proven effective in developing a math-related instructional game (Hermita et al., 2021). At the middle school level, the application is capable of creating a more pleasant and enjoyable learning atmosphere for vocational high school (Indrayanti, 2021). Further study on the development of Genial.Ly-based medium also revealed that its interactive multimedia could be used as a teaching tool for historical materials in class (Romualdi et al., 2023). In addition, in the EFL context, quasi-experimental research has found that Genial.ly games can enhance EFL learners' academic performance in online instruction, particularly in terms of students' knowledge of grammar and vocabulary in context (Cabrera-Solano, 2022). He states that 75% and 84,37% of students agreed that Genial.ly helped them improve their grammatical and vocabulary knowledge, respectively. Another finding from experimental research in the context of reading and writing classes also shows that the application is practical for enhancing EFL students' reading and writing skills (Castillo-Cuesta, 2022a). In conclusion, studies on Genial.ly have demonstrated that it offers numerous advantages to help students acquire second language skills and other subjects, fosters a creative and positive learning environment, promotes ICT literacy, and enhances students' motivation for learning.

Based on the research findings above, it is proven that Genially has positive potential for development and integration within classroom practices. In contrast, the conducted research focused on the primary and middle school levels, using an experimental design to explore the effectiveness of the application and how students perceived it. No study has

designed genial.ly materials based on the context of English for Specific Purposes ESP for higher education level. Systematic research and development projects that document the process of creating ESP resources for nursing students are still absent. Furthermore, there is still no finding on the implementation of Genial.ly for the ESP context at the university level, and how Genial.ly can facilitate students' learning autonomy.

Regarding these gaps, this study aims to explore the potential of genial.ly as an online application for developing English interactive supplementary materials to facilitate students' independent learning in tertiary education. It is highly anticipated that this current study will make a significant contribution to the field of research and development. Based on the rationales, the researcher formulated two research questions as follows:

1. How can Genia.ly be utilized to develop interactive English supplementary materials for EFL nursing students?
2. How are the stages of developing Genial.ly-based interactive English supplementary materials?

METHOD

Design

In this current study, the researcher employed research and development (R&D), which aims to develop and validate educational products (Gall et al., 2007). The product developed is Genial.ly-based English interactive supplementary materials. The product utilizes the concept of self-access language learning, allowing students to apply it outside the English classroom to enhance their English skills and develop their autonomous learning. This current research aimed to develop instructional materials; therefore, the principle used is modified based on the development model of Borg and Gall. Some experts were involved in conducting the product validation, and a tryout was implemented to assess its acceptability, usability, and utility. This current study employed the ADDIE model, which involves the process of analysis, design, development, and evaluation.

Fitriani (2025)

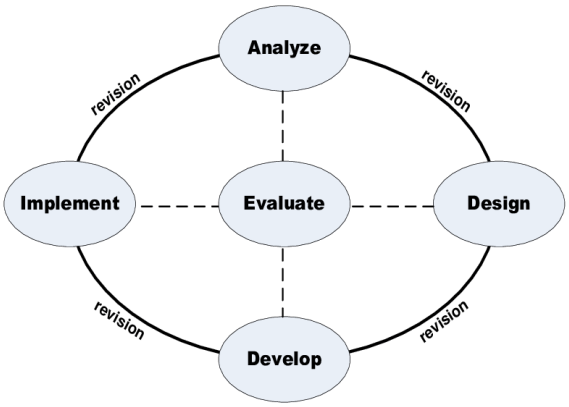

Figure 1. ADDIE Development Model

The first stage of this research involved analysis, during which the researcher conducted a needs analysis to investigate the students' needs by distributing questionnaires to 182 students. This questionnaire is designed to map students' profiles, English proficiency levels, learning preferences or styles, and challenges in learning English. Several pieces of literature, along with supporting references, were collected to support the development of materials. The researcher also analysed the curriculum and English course syllabus and contract provided by the course coordinator. After reviewing the syllabus, the researcher collected various materials as references to support the product and planned the types of activities.

After completing the analysis step, the researcher proceeded with designing the learning products in the form of producing a blueprint. The blueprint comprises learning outcomes, content structure, activity types, media choices, and assessment methods. Then, it is followed by a development stage in which the researcher developed interactive English supplementary materials that can be accessed digitally by the students. The researcher wrote the draft of the learning materials. Throughout its development, the researcher consistently considered the results of the needs analysis, as well as referred to the syllabus used for the course. It was expected that the product would align with the learning objectives set by the course coordinator and meet the students' needs and level.

Along with product development, the process of evaluation is also conducted to assess product appropriateness for the students, including content, activities, language, presentation, and user experiences. It included the process of expert validation and a small-scale tryout to check the quality of the developed product. The researcher conducted two types of expert validation: the first is validation from a materials expert who has expertise in the nursing

field, and the second is validation from an ELT media expert who has expertise in the fields of English language teaching and technology-enhanced language learning. After conducting the expert validation, the product was revised based on the suggestions given by the experts. Next, the process continued to the implementation step, which involved a small-scale trial with students in the Nursing Faculty to gather responses and suggestions for further development. Finally, after passing through all the stages, the researcher conducted a product evaluation and revision of the English interactive supplementary materials based on the results and/or findings obtained.

Research participants

The participants of this research are nursing students who serve as the target users of the developed self-access language learning supplementary materials. These students are directly involved in several stages of the ADDIE model, particularly during the analysis, implementation, and evaluation. Further, the study also involves expert validators, including English grammar and vocabulary instructors as the language expert and a nursing lecturer as the material expert. These experts review the content to ensure that it is linguistically appropriate, pedagogically sound, and aligned with the real-world nursing field. Their feedback supports the validation process during the design and development stages of the ADDIE model, enhancing the quality of the developed materials.

Research instruments

The data in this research consist of both qualitative and quantitative information gathered throughout the stages of the ADDIE model. Several instruments are used to collect data, including questionnaires, to identify the learning needs of nursing students. Additionally, the data were also presented in the form of developed learning materials, validation results, and small-scale trials. The combination of student input as users and expert validation is expected to provide a comprehensive evaluation of the research and development process.

The first research instrument, a questionnaire, was designed to obtain a detailed understanding of the participants' linguistic background, learning experiences, and specific needs related to English language learning. The instruments cover several dimensions of students' learning needs, such as linguistic background, foreign language learning experiences, perspectives on the significance of English, and beliefs about self-directed learning. It is intended to provide a comprehensive overview of learners' needs, challenges,

and expectations, which can then be used as a foundation for designing English language materials relevant to the needs of nursing students. The questionnaire was designed in the form of a G form, using a 1-5 Likert scale and open-ended responses.

The second instrument employed in this current research was a validation sheet, which consisted of a material expert validation sheet and a media expert validation sheet. Both of which were designed to evaluate the feasibility of the developed interactive supplementary materials. The material validation instrument focuses on assessing aspects such as content relevance, accuracy, alignment with learning outcomes, support for independent learning, and the suitability of the materials for the academic and professional needs of nursing students. Meanwhile, the media validation instrument evaluates design quality, efficiency, interactivity, visualization, technological accessibility, and language. Those are intended to ensure that the developed media is both pedagogically sound and practically applicable in English language learning. These two instruments were expected to give comprehensive expert judgment prior to classroom implementation.

The third instrument, distributed during the product tryout, was developed in the form of a questionnaire to identify the strengths, weaknesses, and areas for improvement of the developed media based on users' experiences. The questionnaire items focus on several aspects, including the attractiveness of the media's appearance, ease of use, clarity of instructions, relevance of the materials to the field of study, potential to foster independent learning, and whether or not the developed media can increase motivation and English language proficiency. Furthermore, the instrument also evaluates the organization and design quality of the media. Open-ended questions were also included to capture students' reflections, such as their most and least preferred learning activities, suggestions for improvement, and general feedback for future media development.

The last instrument employed by the researcher was a Focus Group Discussion (FGD). The FGD questions were aligned with the questionnaire items to ensure that the evaluated aspects were covered. This was also expected to give richer and detailed responses that might not emerge through written responses alone. In this way, the FGD was used as a valuable tool to triangulate data, allowing for a comprehensive understanding of students' experiences regarding the developed interactive learning product to be well captured.

Data collection technique

To collect the data, the researcher employed multiple instruments. First, a needs analysis questionnaire was administered to 182 nursing students to gather preliminary data that can be used to map learners' profiles, identify their perceived challenges, and gauge their expectations for the English course. Second, in line with the development of the learning product, expert validation sheets were distributed to both material experts and media experts. The materials expert was a lecturer in the faculty of nursing, while the media expert was a lecturer in the English education department. The feedback from these validations served as a foundation for product revision before it was implemented in a small-scale tryout with students. Third, a product tryout questionnaire was used to evaluate students' responses after using the Genial.ly-based learning media. Nine nursing students participated in the stage to try all the learning menus offered in the G-liners. Finally, to complement the questionnaire data, FGD was conducted using an interview guideline that contained the same items as the questionnaire. Nine students participated in the FGD to share their perspectives, experiences, highlight strengths and weaknesses of the product, and propose recommendations for future development.

Data analysis technique

After collecting all the data, the process continued with data analysis. Both quantitative and qualitative techniques were employed. The results of the questionnaire, in the form of a Likert scale, were analyzed quantitatively using descriptive statistics. Meanwhile, the open-ended questions in the questionnaire, the suggestions from expert validation, and the results of the FGD session were analyzed qualitatively. Regarding the statistical analysis, this current research employed a simple formula, which is:

$$\text{Percentage (\%)} = \frac{\text{Total Score Result}}{\text{Maximum Score}} \times 100\%$$

After obtaining the percentage score of each aspect, the interpretation of score obtained as described as follows: (1) very good (81 - 100%) which means that learning media can be used in in-class activities and independent learning outside the classroom very well as the appearance and design are very attractive, the features can function, the content is relevant to the needs, and the English language materials and activities offered are very diverse and able to facilitate the improvement of English language skills independently; (2) good (61 - 80 %) which represents that learning media can be used in in-class activities or independent

learning outside the classroom well, it has attractive appearance and design can increase learning motivation, features can function, content is relevant to the needs, English materials and activities provided are diverse and appropriate to the user's level; (3) good enough (41 - 60 %) refers that learning media can be used in in-class activities or independent learning outside the classroom, the appearance and design are attractive enough, the features can function, the content is relevant to the needs, the English materials provided are appropriate to the user's level, yet needs some revisions in some aspects; (4) not good 21 - 40% refers to the condition that the learning media can be used in in-class activities with the help of facilitator instructions, the appearance and design need to be improved to be more eye-catching, some interactive features must be reset to avoid errors, the content needs to be adjusted to the needs of students, the English material provided needs to be adjusted so that it is not too easy or too difficult for users; (5) not good and need major revision (< 20%) which means that the learning media is not ready to use and still needs a development process and many revisions in terms of appearance/design, interactive features, content selection, English materials and activities provided.

RESULT AND DISCUSSION

Result

The product of genial.ly based interactive English supplementary materials

The genial.ly-based interactive English supplementary materials developed in this current research are intended for nursing students under the name of G-liners (Genial.ly-based English independent learning for nursing students). All Genial.ly materials, then, are compiled on Google Sites. G-sites is chosen because it is free, simple, and easy to use, particularly for beginner users, to develop a website. Six menus are available: Home, Vocabulary, Listening, Reading, Speaking, Writing, and 'Agronursing'. The 'home' menu aims to welcome students to the website, motivate them to learn English independently, and provide interactive warming-up games intended to assess students' understanding of their grammar knowledge application. The grammar problems are constructed like a TOEFL test and adjusted in terms of their difficulty. It is expected that students will enjoy and form a good impression of the first activity in the self-access language learning media provided. The appearance of some pages from Genial.ly's supplementary materials, which have been developed, is shown in Figure 1 below.

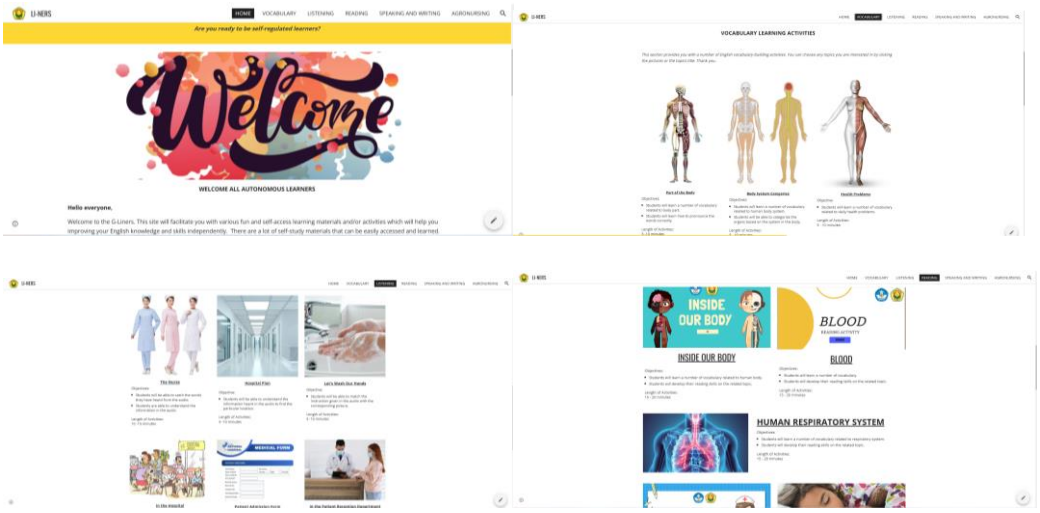

Figure 2. the web appearance of Genial.ly-based English supplementary materials

The second menu in the developed product is 'Vocabulary', consisting of eight activities, including parts of the body, body system categories, health problems, hospital team, laughter, medical supplies, geriatric care, and a career in nursing. All the activities in this menu are designed to enhance students' vocabulary related to health and nursing terms. The researcher describes the learning objectives and estimates the time students will likely spend on each activity. The activities of building students' vocabulary develop in the form of various interactive games.

The third menu of the interactive supplementary material is 'listening,' in which students can develop their English listening skills on related topics. The students are provided with eleven interactive listening activities, which are developed similarly to the TOEFL and IELTS. The topic titles developed are excretory system, digestive system, the nurse, hospital plan, let us wash our hands, in the hospital, patient admission form, in the patient reception department, medical clinic, childhood obesity, and nurses' jobs. In all listening activities, students can turn the audio on and off, as well as speed it up or down, based on their needs. The researcher also provides the learning objective, the length of time required for each activity, and the key answers that enable students to assess how well they have completed the listening comprehension activities.

The fourth menu is 'reading comprehension' which covers ten interactive activities entitled human body system, inside our body, blood, human respiratory system, the nurse, go to sleep, pet therapy, old age and brain, c-section, and healthcare collaboration. Like other activities, students are provided with learning objectives and information about the length of

the activities before starting to read. During the reading section, students are provided with pre-reading, in-reading, and post-reading activities. The pre-reading activity takes the form of a questioning or simple game that aims to build students' schemata and activate their prior knowledge related to the topic. While reading, students are provided with a reading passage whose level of difficulty has been adjusted. Post-reading activity is designed in the form of answering comprehension questions to check students' understanding of the texts.

Furthermore, the fifth menu is 'Speaking and writing', consisting of four activities: nursing jobs, patient admission, stress management, and relieving students' stress. As speaking and writing are productive skills, students are expected to practice on their own to develop their writing and speaking skills. Finally, the last menu is "agronursing," consisting of five activities with topics including food production, farmers' health, farm injuries, pesticide and health, hypertension, and farmers. The activity in the 'agronursing' menu is similar to the reading section, which consists of three parts: pre-reading, while reading, and post-reading activities. In the pre-reading, students build their knowledge through gamification and questioning activities. While reading, students read texts on the 'agronursing' topic, which is then followed by post-reading activities in the form of answering questions based on the text.

The stages of developing Genial.ly-based interactive English supplementary materials

analysis stage

During this stage, the researchers conducted several key activities to ensure that the product meets the students' learning needs and aligns with the educational objectives stated in the course outline. The needs analysis was conducted through the distribution of questionnaires to 182 nursing students. The results of the needs analysis revealed diverse linguistic backgrounds and experiences. In terms of English language mastery, a significant proportion indicated limited proficiency even though they have been learning English for more than 12 years. In addition, they highlighted a strong recognition of the importance of English for their studies and careers. As the students had no English module, they stated that it was crucial to develop such a module to support them in the learning process of English. Furthermore, complementary data were employed, which took the form of document reviews (RPS, syllabus, course contract) and informal interviews with nursing lecturers and students. The findings indicated that students relied heavily on classroom instruction and had limited

exposure to autonomous learning materials. Furthermore, it was found that there was no learning material or textbook within the course. These findings suggest that it is essential to develop supplementary materials that can facilitate students' independent learning through digital platforms.

Based on the learning needs and course objectives, the researcher then formulated instructional goals and activities for the supplementary materials, including interactive language practice that supports vocabulary and grammar development within the nursing and health field, self-paced digital interactive modules, and multimedia and gamification features. These objectives served as the design basis for the subsequent development stage, which can all be facilitated by Genial.ly. As a result of the planning stage, initial design, module structure, and content outline were produced as a prototype for the next stage of development and evaluation.

Design stage

Next, the researcher proceeded to the design stage, creating a detailed blueprint for the learning materials. The blueprint is created as the foundation or guideline for developing a self-access language learning product tailored to the needs of nursing students. It consists of key components of the instructional design, including clearly defined learning outcomes. The main modules consisted of five sections: vocabulary, listening, reading, speaking and writing, and an agronursing topic. Each module page follows a similar structure as the following: (1) warm-up section featuring interactive games or engaging activities to stimulate interest; (2) main content area that delivers the targeted learning materials through Genial.ly interactive resources; (3) a Self-assessment or reflection section where students can check their understanding and monitor progress. Each menu features diverse topics and interactive activities that will engage students in self-learning. Multimodal media were also integrated to accommodate students' diverse learning styles and preferences, including audio recordings, visual aids, and textual materials. Assessment strategies were also included in the blueprint in the form of self-assessment checklists, formative quizzes to monitor learner progress, and provide feedback throughout the learning process.

Developing stage

The next stage is the development stage, which focuses on creating a tangible learning product using the Genial.ly platform. At this stage, the researcher began creating the content

and layout of the interactive English supplementary materials, taking into account the needs of nursing students. The materials development included vocabulary, listening, reading, speaking, and writing, as well as agro-nursing practice specific to the nursing and healthcare field. All materials were developed using Genial.ly. The content was designed to be self-access language learning, enabling students to study independently. Multimedia elements were also embedded into the Genial.ly platform, such as videos, external websites, and a gamification application. This initial product draft would then undergo expert validation and trials (small-scale implementation) in the evaluation stage. Within the product development process, the researcher evaluates expert validation. The results of expert validation are explained in the evaluation stage.

Evaluation stage

The final stage of the ADDIE model in this research is the evaluation phase. This stage is crucial for determining the quality and impact of the developed product. In this study, evaluation was conducted in two forms: formative evaluation and summative evaluation. Formative evaluation is conducted during the product development process. In comparison, summative evaluation is conducted after the tryout stage. There are two experts employed in the formative evaluation: a materials expert (the lecturer from the nursing faculty), with advanced nursing expertise, and a media expert (the lecturer from the English education department), with expertise in ELT media and technology-enhanced language learning.

The result of material expert validation

The product validation for the materials expert encompasses several aspects, including material relevance, accuracy, and the appropriateness of the SALL concept. The researcher, then develops each aspect into some criteria to see the feasibility of the learning media The first aspect which is material relevance consists of the assessment toward whether or not (1) the presentation of material toward the graduate profile, (2) the presentation of material toward the students' competencies, (3) the materials support students' learning needs, (4) the relevance of the presented materials within nursing field, (5) the ability of material to support students' understanding in the field of nursing, (6) and the materials are in line with the students' language level. From points 1 to 5, the learning product obtains a score of 5 (very appropriate). Meanwhile, for point 6, the product receives a score of 4 (appropriate).

Next, on the aspect of accuracy which consists of several statements such as whether or not (1) the material presented is in line with the scientific facts, (2) the material are in accordance with the latest developments of science, (3) the materials are based on the daily facts, (4) and the materials can support students' future career. After being assessed by the expert, the learning product receives a score of 4 (appropriate) for points 1 and 2, while points 3 and 4 receive a score of 5 (very appropriate).

The last aspect for the expert validation is related to whether or not the materials are in line with the concept of self-access language learning which covers some criteria such as the ability of the product to ignite students' curiosity, the product's ability to help students construct their own knowledge, the product ability to develop students' autonomous learning, the ability to provide self-access learning activities, the user experience in accessing the product, the clarity of the instruction given, the kinds of material provision in accordance with the learning needs and students' interest, and the ability of the product to facilitate students to do self-assessment and learning reflection. Based on expert judgment, all those points receive a score of 5 (very appropriate). In conclusion, the learning product has followed the concept of independent learning.

Furthermore, the material expert also provides some descriptive suggestions regarding the pictures chosen in the learning products. It is suggested that the researcher use her own pictures or, if they are taken from the internet, provide credits. Furthermore, the expert also suggests that the researcher add a feature that enables students to directly write their answers on the learning media, along with feedback. Finally, after reviewing the entire process, the conclusion is that the learning media is suitable for the tryout stage, with an overall score of 4.8.

The result of media expert validation

The second validation is conducted by employing the judgment of a media expert. There are several aspects to be assessed, including efficiency, visualization, relevance, technology use, and language. The first aspect-media efficiency covers five criteria inter alia (1) whether it is easy or difficult to use the media, (2) the instruction provided, (3) the capability of learning product to facilitate independent learning, (4) the capability of the product to facilitate students to do self-assessment and/or reflection, (5) and the interactivity of the developed product. Points 1, 3, and 5 receive a score of 5, which is very appropriate.

Meanwhile, points 2 and 4 receive a score of 4, which is described as appropriate.

The second aspect aims to evaluate the visualization of the learning product. The assessment covers some criteria such as (1) design, (2) illustration, (3) font, and (4) layout. All of the criteria receive the maximum score of 5 (very appropriate). Then, for the third aspect which assesses the relevance of the media cover four criteria such as (1) whether the media can develop students' understanding, (2) whether or not the media are in line with the students' needs, (3) whether or not the materials are concrete, and (4) whether the topics chosen are in line with the users' needs. For those four assessment aspects, points 1 and 2 receive a score of 4, while points 3 and 4 receive a score of 5.

The following assessment is about the use of technology within the product. It covers three criteria: (1) whether the technology is accessible, (2) whether the interactive features work well, and (3) the compatibility of the learning media. For these assessment criteria, point 1 receives a score of 4, while points 2 and 3 receive a score of 5. The last aspect to assess is language use, which consists of four assessment points, i.e.: (1) the language use is appropriate for the students' level, (2) the language structure is based on standard English, (3) the sentence construction is appropriate, and (4) the learning media can improve students' language skills. From those four assessment criteria, criteria 1 and 4 receive a score of 4, while points 2 and 3 receive a score of 5.

Furthermore, the media expert also provides some descriptive suggestions, such as the researcher needs to provide feedback on all students' answers so that they know why their answers are correct or incorrect. As Genial.ly-based interactive supplementary materials are provided online, it is crucial to consider the technical problems that may arise during their use. Thus, the researcher needs to consider the offline mode of the learning media so that it can be accessed without an internet connection, which will ease students' use of it. Finally, after reviewing the entire process, the conclusion is that the learning media is suitable for the tryout stage, with some revisions based on the suggestions provided, resulting in an overall score of 4.7.

After being evaluated, the revision was carried out following expert validation to ensure that the Genial.ly-based English supplementary materials are qualified, accurate, and feasible for use. Based on the results of this validation, minor revisions were made in order to enhance clarity and usability. These revisions were significantly crucial to enhance the

learning experience. After the revision process, the product was prepared for the next step, which involved a small-scale implementation or trial phase to gather user feedback and observe practical usage in a real classroom setting.

The result of small-scale implementation (try out)

After passing through the expert validation process and revision based on the suggestions given, the researcher proceeds to a small-scale trial. Nine students from the nursing faculty volunteered to participate in the tryout stage, using the website, menu, and activities in the learning media. After completing the tryout activities, the students fill out the provided questionnaire to give their responses about the product. Regarding the product visualization, 44.4% of students give a score of 5 (very agree), 44.4% give a score of 4 (agree), and 11.1% give a score of 3 (fair). In terms of whether the media is easy to use, 77.8% of students give a score of 5 (very agree), while 22.5% give a score of 4 (agree). Next, from the instruction, it is obtained that 66.7% of students strongly agree that the instruction is easy to understand, 22.2% give a score of 4 (agree), and 11.1% give a score of 3 (fair).

In addition, 88.9% of students strongly agree that the learning product, in the form of genially based supplementary materials, can increase students' motivation to learn English. The remaining 11.1% give a score of 4 (agree) regarding the media's ability to motivate students in learning. Next, 100% of students strongly agree that the materials provided are in line with the study and materials the students learn in the nursing study program. As the learning product is intended to facilitate students' independent learning, students are asked whether the materials are easy to learn independently. Sixty-six and two-thirds percent of the students strongly agree, and thirty-three and one-third percent agree with the statement. Then, the design of the media is categorized neatly and interestingly, as proven by 77.8% of the students stating 'very agree' and 22.2% stating 'agree'. Next, 88.9% of the students very agree and 11.1% of students state 'agree' that the genial. ly-based supplementary materials can increase students' English skills.

Besides, from the students' descriptive responses, it is evident that vocabulary and listening activities are the most favoured activities compared to other provided activities, such as reading, speaking, writing, and 'agronursing'. Students stated that they are reluctant to read long passages independently. Moreover, students also offer suggestions for the future development of the learning media. First, as it is an independent learning media, it is

required to add brief explanations about correct and incorrect answers so that students can do self-reflection more easily. Second, to challenge the students, it will be better if the researcher provides more activities or levels that can be chosen. Third, the menu 'agronursing' should be at a reading comprehension level beyond the expected. However, it should also provide more challenging and engaging activities. Fourth, productive language activities (speaking and writing) should be integrated with features that can directly assess and provide feedback on students' voice recordings and/or writing results. Fifth, the learning media can be integrated with students' profiles in their university database, allowing lecturers to provide feedback outside of class or monitor students' progress in completing activities and developing their learning autonomy. In conclusion, students are enthusiastic about participating in the activities, particularly in the gamification mode, and feel positively toward the learning media, with an overall score of 4.1. In other words, the learning media are appropriate for implementation to support the teaching and learning process.

Discussion

Based on the data findings, Genial.ly can be considered a potential online learning platform for developing interactive learning media and materials. It is in alignment with the results of some previous studies that also figured out that Genial.ly can increase students' engagement within the process of teaching and learning, create an enjoyable learning atmosphere, develop creativity, provide students with attractive activities, enhance EFL learners' academic performance within the instruction, and provide teachers with new insights during the process of teaching and learning (Cabrera-Solano, 2022; Castillo-Cuesta, 2022a, 2022b; Hermita et al., 2021; Indrayanti, 2021; Romualdi et al., 2023). Genial.ly is helpful and enables teachers to create interactive multimedia easily, even if they have no background in coding languages or software programming. It facilitates users with drag-and-drop features, combined with text boxes, images, videos, audio, links, and various animations, to create attractive and engaging presentations. Genial.ly also enables users to work collaboratively on a working file. However, there are some notes on the use of Genial.ly, such as the cost that teachers/students need to pay for subscribing to a premium plan to access some special features. Moreover, in the Indonesian context, the internet connection becomes a hurdle for most students and teachers in accessing online-based applications and/or platforms. Genial.ly requires a strong internet connection to open the file, which will also likely challenge its usage. To deal with this problem, Genial.ly offers the

offline mode (the creator can download the offline mode first to be able to access it without any connection), yet this facility is offered for the premium subscription only. In addition, some teachers may become overly reliant on this tool instead of focusing on the teaching methods. Suppose it is excessively used without being integrated with good pedagogical values. In that case, it can lead to the students' boredom and confusion. It is in line with the principle of using technology in the classroom that teachers need to highlight that technology-based media is merely a tool to assist the learning process; the primary role lies with the teacher, content/materials, and instruction design to achieve the learning objectives.

Furthermore, the concept employed in this current learning media is self-access language learning (SALL), which enables students to use it for independent learning. Regarding the basic concept of SALL, foreign language learners can choose materials they are interested in among the various resources available during independent study (Papadima-Sophocleous, 2013). As teachers' intervention is limited, students should be active in the learning process. The developed current learning media (Genial.ly based interactive English supplementary materials) are in line with the concept of SALL, which is most often conducted in a self-contained learning environment or a self-access centre with independent study programmes, accessible materials, and some support or guidance (clear instructions, answer keys, or new technology (Papadima-Sophocleous, 2013). It is proven by the features in the G-liners, which allow students to choose various learning menus, participate in activities of interest, set their own learning pace, and turn the audio on or off as needed in the listening section. Additionally, they can speed up or slow down the audio according to their needs. Students are provided with clear learning objectives, the time span for completing each activity, and key answers to the learning activities.

As the product employs the concept of self-access language learning, feedback provision plays a crucial role. In this current learning media, however, the researcher has not applied automated feedback or AI-based feedback to the students' writing product due to the researcher's limited knowledge in that area. However, in this current learning product, the researcher still applied non-technological (conventional) peer feedback in speaking and writing activities, which is less effective as there is no control from teachers. Peer feedback, undoubtedly, can promote students' collaborative and social learning, fostering a learning community among those who share the same interests. Students can give and receive valuable feedback from their peers to see their friends' writing quality, such as a) content, b)

organization, c) vocabulary, d) grammar, and e) spelling and punctuation. Teachers can facilitate by providing clear rubrics for grading their essays (Jabr, 2011). Particularly at the tertiary level of education, it is helpful to apply teacher feedback in conjunction with peer feedback, as it enables students to explicitly internalize learning goals, assessment criteria, and problem-solving strategies, leading to a more profound understanding of the learning process (Bürgermeister et al., 2021).

In terms of learning activities, it has been found that gamified activities have become students' favorites. This finding aligns with the results of numerous research studies, which indicate that gamification within the teaching and learning process can enhance students' learning motivation (Figueroa et al., 2015). Additionally, the use of gamification offers benefits in enhancing students' language skills and abilities, positively influencing students' attitudes and emotional responses, providing an authentic language learning environment, promoting the habit of self-learning, and improving students' knowledge retention (Zhang & Hasim, 2023). Zhang and Hasim also highlight that gamification has been widely utilized in many non-English speaking countries and various English language skills to facilitate language learning. Gamification has been proven to be effective in increasing students' participation and motivating users to incorporate game elements and techniques, such as points, badges, leaderboards, progress bars, levels, and rewards. Due to its effectiveness in helping students in the learning process, teachers need to have knowledge (digital literacy) of learning platforms that can be used to provide gamification features, one of which is Genial.ly.

In addition, based on the findings, it is also discovered that reading, writing, and speaking menus become challenges in SALL. Even though reading activities have been set into pre, whilst, and post-reading, combined with gamified assessment, it seems that students are still reluctant to participate in this activity. During the tryout, students prefer to skip this or read the passage at a glance by skimming and scanning only. As we know, reading is a complex process that requires many aspects, such as recognizing alphabetical characters and punctuation, to function cognitive skills and reach the intended meaning (Khan et al., 2020). Then, based on the results of the need analysis, it is found that most students are at the beginner to intermediate level of English, thus lacking sufficient competency in vocabulary knowledge, grammar, and complex sentence structure, which demotivates them from engaging in self-reading activities. Due to these limitations, students are unwilling to read, as

they have low motivation and perceive reading in English as an exhausting learning activity for EFL students (Shahbaz et al., 2016). It is also in line with the fact that Indonesian learners have a very low rate of reading interest; only 10 percent of Indonesians above 10 years old are categorized as good readers (Kurniasih, 2016). Based on the reading problems encountered, applying a differentiated reading activity can be one alternative. The differentiation can be in the form of the level of difficulty (easy, medium, and advanced) or the length of the paragraph (short, medium, and long passages). By providing differentiated reading materials, it is expected that students can choose the reading activity that suits them best.

Writing becomes another challenge in self-access language learning as it is a productive skill that is very complex. Particularly for EFL learners, writing is a challenging activity and a stressful one (Sasmita & Setyowati, 2021). These findings are also in line with the current research that students' interest in writing remains low, making it quite common for students to dislike and be reluctant to complete writing assignments. A study conducted in the Thai EFL context also finds that students (Seensangworn, 2017) from both English and non-English departments. It was found that writing is difficult due to some problems, such as content and ideas, organizational pattern, idea development, and language use.

Regarding the students' reluctance in speaking activities, this result aligns with the findings of the need analysis conducted prior to product development. Most students think that speaking is a difficult skill, as they encounter problems, including a lack of vocabulary, poor English pronunciation, low confidence in producing English, and anxiety about making mistakes during English conversations (Verdiyeva & Huseynova, 2017). As a productive skill in which students need to perform or produce something using English directly and spontaneously, it requires many practices. Speaking is somehow challenging to do individually, as there is no interaction and two-way communication. In the context of EFL, where students have limited exposure and experience with the real-world use of the target language, it becomes more difficult (Franscy & Ramli, 2022).

Overall, based on the product evaluation, the researcher concluded that the learning product (in the form of G-liners, which utilizes Genial.ly as the leading platform to produce interactive English supplementary materials) is appropriate for use within and/or outside the classroom., It can be integrated with the main English course to facilitate students' learning

autonomy or as part of an English enrichment program. The integration in the course will enable the teacher to monitor the students' progress in building their autonomous learning culture.

CONCLUSION AND IMPLICATION

Conclusion

In conclusion, the study suggests that Genial.ly can be effectively utilized as a digital platform to design engaging and interactive English supplementary materials, promoting learning autonomy in the ESP context of tertiary education. In the process of developing the learning materials, systematic research and development, including planning, designing, developing, validating, revising, and conducting small-scale trials, played a crucial role in ensuring that the developed products met both the students' needs and the instructional goals.

Limitation

Despite the promising outcomes of this study, several limitations remain. First, the research was conducted using a small-scale trial with a limited number of nursing students from a single institution, which restricts the generalizability of the findings. Second, although expert validation was conducted, data collection relied heavily on subjective evaluation instruments, such as expert rating scales and student feedback forms. Observation, students' learning log in using the developed materials could have provided more profound insight into how the materials function in real-time learning environments. Third, the study did not apply a quasi-experimental or Classroom Action Research to measure the use of products on measurable gains in learner autonomy, motivation, or specific language skills. Lastly, the focus was primarily on product development, rather than a comprehensive implementation strategy, which may influence how effectively such materials can be integrated into diverse teaching contexts.

Suggestion

Regarding the identified limitation above, future researchers are encouraged to expand the scope and depth of investigation to enhance the validity of the research findings. It is highly suggested that conducting large-scale trials involving nursing students from some institutions would be beneficial to improve the generalizability of the results. The employment of classroom observation, learners' activity logs in using developed self-access

English supplementary materials, and a quasi-experimental or classroom action research approach would enable rigorous measurement of how learners use the product and its impact on language proficiency, learner autonomy, and motivation.

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BIO PROFILE

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